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Scott Jon Benjamin

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TRUONG, CAM Y T

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/686,124	Applicant(s) BENJAMIN ET AL.	
	Examiner Cam Y T. Truong	Art Unit 2169	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 30-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 30-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) ☒ Notice of References Cited (PTO-892) | 4) ☐ Interview Summary (PTO-413) |
| 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) ☒ Information Disclosure Statement(s) (PTO/SB/08) | 5) ☐ Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/27/2008</u> . | 6) ☐ Other: _____ |

DETAILED ACTION

1. Applicant has amended claims 1,30, 35, 40 and added claim 47 in the amendment filed on 10/2/2008.

Claims 1-11 and 30-47 are pending in this Office Action.

Response to Arguments

2. Applicant's arguments with respect to claims 1-11 and 30-47 have been considered but are moot in view of the new ground(s) of rejection.

a. Applicant respectfully submits that the cited references, taken individually or in combination, do not teach or suggest a method comprising "accessing a relational database to obtain information regarding creation of a unit of manufacture, the relational database comprising at least one parts information lookup table, at least one location information lookup table, at least one unit storage table, and a pair of configuration management storage tables, wherein said accessing the relational database comprises using a first index key, the first index key defining a group of configuration management records for a part definition, location definition or unit definition, and using a second index key, the second index key defining current configuration management records for a part definition, location definition, or a unit location, wherein said pair of configuration management storage tables are linked together, and one of said configuration management storage tables comprises a configuration management status table and the other comprises a configuration management memo table" in combination with the remaining features of claim 1.

Examiner respectfully disagrees.

Knoblock teaches the claimed limitations:

"accessing a relational database to obtain information regarding creation of a unit of manufacture" as FIG. 4A is a flowchart depicting a process that can be used to create a shelf configuration, according to a preferred embodiment of the present invention. Specifically, this process is performed by the rackface tool 122, according to a preferred embodiment of the present invention. The process begins with step 404. In step 404, the user specifies a unique name for the new shelf configuration. Typically, this name must be unique in the database 108. In addition, values are specified for required fields. For example, in a preferred embodiment, required fields include a manufacture, an equipment class and an equipment subclass. Note that in a preferred embodiment, a value for manufacturer or `generic` is used for generic racks as previously described. Next, in step 406, a pick list is displayed to the user comprising a list of pre-defined components from the product catalog 126. Thus, components that have been created according to the process depicted in FIG. 6 are listed in step 406. Specifically, in this example, a list of shelf components are presented to the user. In a preferred embodiment, sort, find and filter options are provided to assist the user in finding a particular component listed in the product catalog 126. In any case, the user is prompted to select a particular shelf from the pick list presented in step 406 (col. 12, lines 23-46);

“ the relational database comprising at least one parts information lookup table, at least one location information lookup table, at least one unit storage table” as relational database 108 comprising tables that contains parts information and locations to place a part of a unit of manufacture (Figs. 10A-10h 9, lines 55-67; col. 22, lines 5-50),

“ a pair of configuration management storage tables” as a pair of configuration storage tables (fig. 10D-10M, col. 22, lines 5-30)

“defining a group of configuration management records for a part definition, location definition or unit definition” as defining records for a part definition (col. 21, lines 40-67);

“defining current configuration management records for a part definition, location definition, or a unit location” as defining records for a part definition (col. 21, lines 40-67);

“wherein said pair of configuration management storage tables are linked together” as the tables in the relational database 108 are linked together (fig. 10F, col. 21, lines 20-40).

Knoblock fails to teach the claimed limitation “one of the said configuration management storage table comprise a configuration management status table and the other comprise a configuration management memo table; said accessing the relational database comprises using a first index key, the first index key defining and using a second index key; the first index key defining, the second index key defining”.

Rivette teaches table 1217 includes status attribute. Thus, this table is represented as status table. The table 1218 (memo table) stores information that identifies the documents in a BOM group. The table 1217 is linked to table 1218 (fig. 12G, col. 73, lines 20-36).

Rivette further teaches table 1217 has a BOM_ID (key) that identifies a BOM group. In this case, a BOM group is bicycles group of wheels (records). The BOM_ID is represented as a first index key (Figs. 12G, 22; col. 73, lines 30-45). A document_ID identifies all patents in a group. The document_ID is represented a second index key (figs. 12C, 12G, col. 73, lines 30-45; col. 126, lines 10-30). Knoblock teaches location definition (col. 26, lines 1-10).

As discussed above the combination of Knoblock and Rivette teaches all claimed limitation of claim 1.

b. Applicant's representative argued that there is no teaching or suggestion in Rivette that a BOM table includes configuration management records. Furthermore, there is no teaching or suggestion in Rivette that use of a BOM table is equivalent to using a first index key defining a group of configuration management records for a part definition, location definition or unit definition and using a second index key defining current configuration management records for a part definition, location definition, or a unit location".

Examiner respectfully disagrees.

As to claim 30, Rivette teaches the claimed limitations:

“storing information in a relational database, said relational database comprising a pair of configuration management storage tables” as storing information in a relational database 626. The relational database comprises table 1217 and 1218 of storage tables (col. 72, lines 1-20; fig. 12G);

“wherein said pair of configuration management storage are linked together” as table 1217 is linked to 1218 (fig. 12G);

“ a first one of said configuration management storage tables comprising a configuration management status table” as table 1217 is a status table (col. 72, lines 1-20);

“a second one of said configuration management storage tables comprising a management memo table” as table 1218 is a memo table (col. 73, lines 30-35);

“accessing said pair of configuration management storage tables using a first index key, the first index key defining a group of configuration management records” as using a index primary key to define a group of records as configuration management records (figs. 12G, 22; col. 73, lines 30-45);

“accessing said pair of configuration management storage tables using a second index key, the second index key defining concurrent configuration management records” as using a index primary key to define a group of records (figs. 12C, 12G, col. 73, lines 30-45; col. 126, lines 10-30).

Rivette does not explicitly teach the claimed limitation “ related to a unit of manufacture; to obtain information regarding creation of the unit of manufacture, for a

part definition, location definition or unit definition; wherein the configuration management memo table stores configuration comments”.

Knoblock teaches the claimed limitations:

“, for a part definition, location definition or unit definition” as location definition (col. 26, lines 1-10);

“related to a unit of manufacture; to obtain information regarding creation of the unit of manufacture” as FIG. 4A is a flowchart depicting a process that can be used to create a shelf configuration, according to a preferred embodiment of the present invention. Specifically, this process is performed by the rackface tool 122, according to a preferred embodiment of the present invention. The process begins with step 404. In step 404, the user specifies a unique name for the new shelf configuration. Typically, this name must be unique in the database 108. In addition, values are specified for required fields. For example, in a preferred embodiment, required fields include a manufacture, an equipment class and an equipment subclass. Note that in a preferred embodiment, a value for manufacturer or `generic` is used for generic racks as previously described. Next, in step 406, a pick list is displayed to the user comprising a list of pre-defined components from the product catalog 126. Thus, components that have been created according to the process depicted in FIG. 6 are listed in step 406. Specifically, in this example, a list of shelf components are presented to the user. In a preferred embodiment, sort, find and filter options are provided to assist the user in finding a particular component listed in the product catalog 126. In any case, the user is

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prompted to select a particular shelf from the pick list presented in step 406 (col. 12, lines 23-46);

Identifying information includes a manufacture's name, model, and description.

Preferably, such information is taken directly from the manufacture's data sheet or the like. In addition, identifying information can include a unique part number provided by the service provider, and classifications and/or subclassifications for each component.

Physical attributes include for example, quantities for height, weight and depth.

Electrical data includes the type of voltage, such as direct current (DC), single phase alternating current (AC1), and three phase alternating current (AC3). In addition, electrical data includes a quantity of amps, watts and voltages typically drawn by the module. For shelves, connection attributes can include information such as the number of wire, fiber optic, and/or coaxial connections. Status information preferably includes for example a flag to indicate whether or not the component specification is complete, incomplete or waiting for approval from a component approval group or the like (col. 3, lines 5-35).

As discussed above the combination of Knoblock and Rivette teaches the said pair of configuration management storage tables are linked together, and one of said configuration management storage tables comprises a configuration management status table and the other comprises a configuration management memo table.

However, the limitation "wherein the configuration management memo table stores configuration comments" is disclosed by a new prior reference as discussed in this office action.

c. Applicant's representative argued that similar arguments apply to claims 30, 35, 40, and 47. Thus, the cited references fail to teach all of the features of the claims. Applicant submits that claim 46 is allowable since the corresponding independent claim (1) has been shown to be allowable over the prior art. Additionally, Applicant asserts that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the rejection has been shown to be unsupported for the independent claims, a further discussion of the dependent claims is not necessary at this time. Accordingly, Applicant respectfully requests withdrawal of the § 103(a) rejection.

Examiner respectfully disagrees. As discussed above the combination of cited references teach all of the claimed limitation. Thus, the 103 rejection for claims are proper.

d. Applicant argued that there is no teaching or suggestion in Rivette that a BOM table includes configuration management records. Furthermore, there is no teaching or suggestion in Rivette that use of a BOM table is equivalent to using a first index key defining a group of configuration management records for a part definition, location definition or unit definition and using a second index key defining current configuration management records for a part definition, location definition, or a unit location.

Examiner respectfully disagrees. Rivette teaches table 1217 includes records (col. 72, lines 1-20). Rivette further teaches table 1217 has a BOM_ID (key) that identifies a BOM group. In this case, a BOM group is bicycles group of wheels (records). The BOM_ID is represented as a first index key (Figs. 12G, 22; col. 73, lines 30-45). A document_ID identifies all patents in a group. The document_ID is represented a second index key (figs. 12C, 12G, col. 73, lines 30-45; col. 126, lines 10-30). Knoblock teaches location definition (col. 26, lines 1-10).

Thus, the combination of Rivette and Knoblock teaches the above claimed limitation.

Claim Objections

3. Claim 47 is objected to because of the following informalities: there is a typo error in the claimed limitation "recording or retrieving configuration information of the unit of manufacture on at least a portion of the relational database, wherein:"; thus this limitation should be written as "recording or retrieving configuration information of the unit of manufacture on at least a portion of the relational database."

. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-11, 45, 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knoblock et al (USP 6023699) in view of Rivette (US 6339767) and Fisher et al (or hereinafter "Fisher") (US 6247128).

As to claim 1, Knoblock teaches the claimed limitations:

"accessing a relational database to obtain information regarding creation of a unit of manufacture " as FIG. 4A is a flowchart depicting a process that can be used to create a shelf configuration, according to a preferred embodiment of the present invention. Specifically, this process is performed by the rackface tool 122, according to a preferred embodiment of the present invention. The process begins with step 404. In step 404, the user specifies a unique name for the new shelf configuration. Typically, this name must be unique in the database 108. In addition, values are specified for required fields. For example, in a preferred embodiment, required fields include a manufacture, an equipment class and an equipment subclass. Note that in a preferred embodiment, a value for manufacturer or `generic` is used for generic racks as previously described. Next, in step 406, a pick list is displayed to the user comprising a list of pre-defined

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components from the product catalog 126. Thus, components that have been created according to the process depicted in FIG. 6 are listed in step 406. Specifically, in this example, a list of shelf components are presented to the user. In a preferred embodiment, sort, find and filter options are provided to assist the user in finding a particular component listed in the product catalog 126. In any case, the user is prompted to select a particular shelf from the pick list presented in step 406 (col. 12, lines 23-46);

“the relational database comprising at least one parts information lookup table, at least one location information lookup table, and at least one unit storage table” as database 108 comprising tables that contains parts information and locations to place a part of a unit of manufacture (Figs. 10A-10h col. 9, lines 55-67; col. 22, lines 5-50),

“a pair of configuration management storage tables, wherein said pair of configuration management storage tables are linked together” as (col. 7, lines 58-67),

“retrieving configuration information on a unit of manufacture on at least a portion of the relational database” as (col. 13, lines 30-60);

“wherein: said at least one location information lookup table comprises a list of available locations to place a part in the unit of manufacture and further comprises a location definition lookup table” as database 108 comprising tables that contains parts information and locations to place a part of a unit of manufacture (Figs. 10A-10h col. 9, lines 55-67; col. 22, lines 5-50),

“said at least one parts information lookup table providing a catalog of parts and a parts list lookup table capable of identifying one or more parts” as a product catalog

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table includes parts and the product catalog table capable of identifying parts (col. 9, lines 45-55; col. 22, lines 40-67),

“said unit storage table comprises the configuration of the unit of manufacture comprising: a unit definition storage table, which is related to said location information lookup table to identify the unit of manufacture” as (col. 13, lines 30-60);

“a unit parts list storage table, which is related to one or more of said at least one parts in said at least one parts list information lookup table to provide a list of parts for one or more units of said unit of manufacture, where one or more parts in said unit parts list storage table is assigned a location from said location definition lookup table” as one or more parts in said unit parts list storage table is assigned a location from said location definition lookup table (col. 12, lines 20-67);

“a unit parameter list storage table, to record configuration parameter values for one or more parts in said unit of manufacture, which is related to both said unit parts list storage table and said parameter definition lookup table” as (col. 13, lines 30-60);

“defining a group of continuation management records for a part definition, location definition or unit definition, defining current configuration management records for a part definition, location definition, or unit location (col. 7, lines 58-67; col. 12, lines 20-40);

Knoblock fails to teach the claimed limitation “one of the said configuration management storage table comprise a configuration management status table and the other comprise a configuration management memo table; wherein said accessing the relational database comprises using a first index key, and using a second index key;

the first index key defining, the second index key defining, wherein the configuration management memo table stores configuration comments”.

Rivette teaches the claimed limitations “one of the said configuration management storage table comprise a configuration management status table and the other comprise a configuration management memo table; wherein said accessing the relational database comprises using a first index key, and using a second index key; the first index key defining, the second index key defining” as table 1217 includes status attribute. Thus, this table is represented as status table. The table 1218 (memo table) stores information that identifies the documents in a BOM group. The table 1217 is linked to table 1218 (fig. 12G, col. 73, lines 20-36).

Revittes further teaches table 1217 has a BOM_ID (key) that identifies a BOM group. In this case, a BOM group is bicycles group of wheels (records). The BOM_ID is represented as a first index key (Figs. 12G, 22; col. 73, lines 30-45). A document_ID identifies all patents in a group. The document_ID is represented a second index key (figs. 12C, 12G, col. 73, lines 30-45; col. 126, lines 10-30). Knoblock teaches location definition (col. 26, lines 1-10).

Fisher teaches “wherein the configuration management memo table stores configuration comments” as a table stores Entity Names such as configuration part and configuration code and entity definitions such as part numbers of Compaq added software and hardware, contains family configuration codes for each base model part numbers (col. 13). The table, which stores entities definitions, is represented as the configuration management memo table. The entity definitions such as part numbers of

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Compaq added software and hardware, contains family configuration codes for each base model part numbers are represented as configuration comments.

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to modify Rivette's teaching of BOM tables and using group BOM names and indexes to search tables and Fisher's teaching of storing entity definitions in a table to Knoblock's system in order to allow a user to identify and build a particular equipment following user's desire and search parts of items in a relational database by using quickly by using indexes and BOM tables and further provide users with a means for placing configured racks from the configuration library in particular locations within remote sites.

As to claim 2, Knoblock teaches the claimed limitation "wherein said location definition lookup table is related to a part family definition lookup table which is related to said parts list lookup table for identifying which parts are compatible with one or more location of said location definition" as (fig. 10J-10K).

As to claim 3, Knoblock teaches the claimed limitation "wherein said location definition lookup table is related to an equipment type definition lookup table for identifying any number of different types of units of manufacture" as (col. 12, lines 25-67).

As to claim 4, Knoblock teaches the claimed limitation “wherein said location definition lookup table is related to a location description lookup table for defining one, or more locations for a type of unit of manufacture” as (col. 12, lines 40-60).

As to claim 5, Knoblock teaches the claimed limitation “wherein said parts list lookup table is related to a part type lookup table for grouping said parts into part categories” as (col. 13, lines 45-60).

As to claim 6, Knoblock teaches the claimed limitation “wherein said parts in said parts list lookup table are related to a kit definition lookup table for grouping said parts into kits” as (col. 20, lines 25-67).

As to claim 7, Knoblock teaches the claimed limitation “wherein said unit parts list storage table is related to a processor group storage table for grouping parts associated with a processor” as (col. 22, lines 40-67).

As to claim 8, Knoblock teaches the claimed limitation “an interface definition lookup table and a unit interconnect storage table, wherein said parts list lookup table is related to said interface definition lookup table for defining interfaces unique to a part in the parts list, and said unit parts list storage table is related to said unit interconnect storage table, which is related to said interface definition lookup table for defining connections between parts in said unit parts list” as (col. 17, lines 15-50).

As to claim 9, Knoblock teaches the claimed limitation “wherein said interface definition lookup table is related to an interface family lookup table for identifying compatible mating connections of said parts” as (col. 17, lines 15-50).

As to claim 10, Knoblock teaches the claimed limitation “wherein said parameter list lookup table is related to a parameter group definition lookup table for grouping said parameters into parameter categories” as (col. 3, lines 15-50).

As to claim 11, Knoblock teaches the claimed limitation wherein said parameter list lookup table is related to a parameter description look up table for defining multiple groups of parameters, which allow multiple pre-defined configurations of a part” as (col. 17, lines 15-50; col. 3, lines 15-50).

As to claim 45, Knoblock and Rivette teaches the claimed limitation subject matter in claim 1, Rivette further teaches “assembling the unit of manufacture in accordance with the configuration information in the relational database” as (col. 71, lines 35-45).

As to claim 47, Knoblock teaches the claimed limitations:

“accessing a relational database to obtain information regarding creation of a unit of manufacture” as FIG. 4A is a flowchart depicting a process that can be used to create

a shelf configuration, according to a preferred embodiment of the present invention. Specifically, this process is performed by the rackface tool 122, according to a preferred embodiment of the present invention. The process begins with step 404. In step 404, the user specifies a unique name for the new shelf configuration. Typically, this name must be unique in the database 108. In addition, values are specified for required fields. For example, in a preferred embodiment, required fields include a manufacture, an equipment class and an equipment subclass. Note that in a preferred embodiment, a value for manufacturer or `generic` is used for generic racks as previously described. Next, in step 406, a pick list is displayed to the user comprising a list of pre-defined components from the product catalog 126. Thus, components that have been created according to the process depicted in FIG. 6 are listed in step 406. Specifically, in this example, a list of shelf components are presented to the user. In a preferred embodiment, sort, find and filter options are provided to assist the user in finding a particular component listed in the product catalog 126. In any case, the user is prompted to select a particular shelf from the pick list presented in step 406 (col. 12, lines 23-46);

“ wherein the relational database comprises: at least one parts information lookup table, wherein the at least one parts information lookup table comprises a catalog of parts and further comprises a parts list lookup table capable of identifying one or more parts, wherein one or more of the parts in the parts information lookup table are comprised in the unit of manufacture” as relational database 108 comprising tables that

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contains parts information and locations to place a part of a unit of manufacture (Figs. 10A-10h 9, lines 55-67; col. 22, lines 5-50);

“at least one location information lookup table, wherein the at least one location information lookup table comprises a list of available locations to place a part in the unit of manufacture and further comprises a location definition lookup table” as Figs. 10A-10h 9, lines 55-67; col. 22, lines 5-50);

“a pair of configuration management storage tables, wherein the pair of configuration management storage tables are linked together” as the tables in the relational database 108 are linked together (fig. 10F, col. 21, lines 20-40);

“at least one unit storage table, wherein the at least one unit storage table comprises a configuration of the unit of manufacture” as (figs. 10C-10E, col. 9, lines 55-67; col. 22, lines 5-50),

“ wherein the at least one unit storage table comprises: “a unit definition storage table, which is related to the at least one location information lookup table to identify the specific unit of manufacture” as (col. 13, lines 30-60);

“a unit parts list storage table, which is related to one or more of the parts in the at least one parts list information lookup table to provide a list of parts for the unit of manufacture, where one or more parts in the unit parts list storage table is assigned a location from the location definition lookup table” as one or more parts in said unit parts list storage table is assigned a location from said location definition lookup table (col. 12, lines 20-67);

“a unit parameter list storage table for storing configuration parameter values for one or more parts in the unit of manufacture, which is related to both the unit parts list storage table and the parameter definition lookup table” as (col. 13, lines 30-60); and

“recording or retrieving configuration information of the unit of manufacture on at least a portion of the relational database, wherein” as retrieving information from the relational database (col. 13, lines 30-60).

Knoblock does not explicitly teach the claimed limitation “wherein the pair of the configuration management storage tables comprises a configuration management status table and a configuration management memo table, wherein the configuration management memo table stores configuration comments”.

Rivette teaches the claimed limitations “one of the said configuration management storage table comprise a configuration management status table and the other comprise a configuration management memo table; wherein said accessing the relational database comprises using a first index key, and using a second index key; the first index key defining, the second index key defining” as table 1217 includes status attribute. Thus, this table is represented as status table. The table 1218 (memo table) stores information that identifies the documents in a BOM group. The table 1217 is linked to table 1218 (fig. 12G, col. 73, lines 20-36).

Rivette further teaches table 1217 has a BOM_ID (key) that identifies a BOM group. In this case, a BOM group is bicycles group of wheels (records). The BOM_ID is represented as a first index key (Figs. 12G, 22; col. 73, lines 30-45). A document_ID identifies all patents in a group. The document_ID is represented a second index key

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(figs. 12C, 12G, col. 73, lines 30-45; col. 126, lines 10-30). Knoblock teaches location definition (col. 26, lines 1-10).

Fisher teaches “wherein the configuration management memo table stores configuration comments” as a table stores Entity Names such as configuration part and configuration code and entity definitions such as part numbers of Compaq added software and hardware, contains family configuration codes for each base model part numbers (col. 13). The table, which stores entities definitions, is represented as the configuration management memo table. The entity definitions such as part numbers of Compaq added software and hardware, contains family configuration codes for each base model part numbers are represented as configuration comments.

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to modify Rivette’s teaching of BOM tables and using group BOM names and indexes to search tables and Fisher’s teaching of storing entity definitions in a table to Knoblock’s system in order to allow a user to identify and build a particular equipment following user’s desire and search parts of items in a relational database by using quickly by using indexes and BOM tables and further provide users with a means for placing configured racks from the configuration library in particular locations within remote sites.

6. Claims 30-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rivette (US 6339767) in view of Knoblock et al (USP 6023699) and Fisher et al (or hereinafter "Fisher") (US 6247128).

As to claim 30, Rivette teaches the claimed limitations:

"storing information in a relational database, said relational database comprising a pair of configuration management storage tables" as storing information in a relational database 626. The relational database comprises table 1217 and 1218 of storage tables (col. 72, lines 1-20; fig. 12G);

"wherein said pair of configuration management storage are linked together" as table 1217 is linked to 1218 (fig. 12G);

"a first one of said configuration management storage tables comprising a configuration management status table" as table 1217 is a status table (col. 72, lines 1-20);

"a second one of said configuration management storage tables comprising a management memo table" as table 1218 is a memo table (col. 73, lines 30-35);

"accessing said pair of configuration management storage tables using a first index key, the first index key defining a group of configuration management records" as using a index primary key to define a group of records as configuration management records (figs. 12G, 22; col. 73, lines 30-45);

"accessing said pair of configuration management storage tables using a second index key, the second index key defining concurrent configuration management

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records" as using a index primary key to define a group of records as configuration management records (figs. 12C, 12G, col. 73, lines 30-45; col. 126, lines 10-30).

Rivette does not explicitly teach the claimed limitation "related to a unit of manufacture; to obtain information regarding creation of the unit of manufacture, for a part definition, location definition or unit definition; wherein the configuration management memo table stores configuration comments".

Knoblock teaches the claimed limitations ", for a part definition, location definition or unit definition" as location definition (col. 26, lines 1-10);

"related to a unit of manufacture; to obtain information regarding creation of the unit of manufacture" as FIG. 4A is a flowchart depicting a process that can be used to create a shelf configuration, according to a preferred embodiment of the present invention. Specifically, this process is performed by the rackface tool 122, according to a preferred embodiment of the present invention. The process begins with step 404. In step 404, the user specifies a unique name for the new shelf configuration. Typically, this name must be unique in the database 108. In addition, values are specified for required fields. For example, in a preferred embodiment, required fields include a manufacture, an equipment class and an equipment subclass. Note that in a preferred embodiment, a value for manufacturer or `generic` is used for generic racks as previously described. Next, in step 406, a pick list is displayed to the user comprising a list of pre-defined components from the product catalog 126. Thus, components that have been created according to the process depicted in FIG. 6 are listed in step 406. Specifically, in this example, a list of shelf components are presented to the user. In a

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preferred embodiment, sort, find and filter options are provided to assist the user in finding a particular component listed in the product catalog 126. In any case, the user is prompted to select a particular shelf from the pick list presented in step 406 (col. 12, lines 23-46);

Identifying information includes a manufacture's name, model, and description.

Preferably, such information is taken directly from the manufacture's data sheet or the like. In addition, identifying information can include a unique part number provided by the service provider, and classifications and/or subclassifications for each component.

Physical attributes include for example, quantities for height, weight and depth.

Electrical data includes the type of voltage, such as direct current (DC), single phase alternating current (AC1), and three phase alternating current (AC3). In addition, electrical data includes a quantity of amps, watts and voltages typically drawn by the module. For shelves, connection attributes can include information such as the number of wire, fiber optic, and/or coaxial connections. Status information preferably includes for example a flag to indicate whether or not the component specification is complete, incomplete or waiting for approval from a component approval group or the like (col. 3, lines 5-35).

Fisher teaches "wherein the configuration management memo table stores configuration comments" as a table stores Entity Names such as configuration part and configuration code and entity definitions such as part numbers of Compaq added software and hardware, contains family configuration codes for each base model part numbers (col. 13). The table, which stores entities definitions, is represented as the

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configuration management memo table. The entity definitions such as part numbers of Compaq added software and hardware, contains family configuration codes for each base model part numbers are represented as configuration comments.

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Knoblock's teaching of location definition, identifying unit of manufacture and Fish's teaching of storing configuration definitions in a table to Rivette's system in order to allow a user to identify location of a part of a particular equipment in large database easily and further searching parts of items in a relational database quickly and further provide users with a means for placing configured racks from the configuration library in particular locations within remote sites.

As to claims 31, 36, 41, Rivette and Knoblock teaches the claimed limitation subject matter in claims 30, 35 and 40, Knoblock further teaches "wherein said relational database further comprise at least one location information lookup table providing a list of available locations to place a part in a unit of manufacture" as (col. 12, lines 40-60).

As to claims 32, 37, 42, Rivette and Knoblock teaches the claimed limitation subject matter in claims 30, 35 and 40, Knoblock further teaches "wherein said at least one location information lookup table further comprise a location definition lookup table" as (col. 12, lines 25-67).

As to claims 33, 38, 43, Rivette and Knoblock teaches the claimed limitation subject matter in claims 30, 35 and 40 , Knoblock further teaches “wherein said relation database further comprises at least one parts information lookup table providing a catalog of parts” as (col. 13, lines 45-60).

As to claims 34, 39, 44, Rivette and Knoblock teaches the claimed limitation subject matter in claims 30, 35 and 40 , Knoblock further teaches “wherein said at least one parts information lookup table further comprises a parts list lookup table capable of identifying one or more parts” as (col. 17, lines 15-50).

As to claim 35, Rivette and Knoblock teaches the claimed limitation subject matter in claims 30 and 40 , Rivette further teaches “a storage device having software stored thereon which, if executed, are adapted to cause a computer to” (col. 19, lines 39-60).

As to claim 40, Rivette teaches the claimed limitations:

“a processor; a storage device coupled to the processor; wherein the storage device stores relational database software executable by the processor to maintain said relational database, the relational database comprising a pair of configuration management storage tables” as a processor, a storage device coupled to the processor (fig. 9). The storage device stores and maintains information in a relational database

626. The relational database comprises table 1217 and 1219 of storage tables (col. 72, lines 1-20; fig. 12G, 6, 11);

“wherein said pair of configuration management storage are linked together” as table 1217 is linked to 1218 (fig. 12G);

“ a first one of said configuration management storage tables comprising a configuration management status table” as table 1217 is a status table (col. 72, lines 1-20);

“a second one of said configuration management storage tables comprising a management memo table” as table 1218 is a memo table (col. 72, lines 1-25);

“wherein the storage device stores a first index key to access said pair of configuration management storage tables, the first index key defining a group of configuration management records” as using a index primary key to define a group of records as configuration management records (figs. 12G, 22; col. 73, lines 30-45);

“wherein the storage device stores a second index key to access said pair of configuration management storage tables, the second index key defining concurrent configuration management records” as using a index primary key to define a group of records. These records are represented as configuration management records (figs. 12C, 12G, col. 73, lines 30-45; col. 126, lines 10-30).

Rivette does not explicitly teach the claimed limitation “regarding a unit of manufacture, related to a unit of manufacture; to obtain information regarding creation of the unit of manufacture, for a part definition, location definition or unit definition; wherein the configuration management memo table stores configuration comments”.

Knoblock teaches the claimed limitations “, for a part definition, location definition or unit definition” as location definition (col. 26, lines 1-10);

“regarding a unit of manufacture, related to a unit of manufacture; to obtain information regarding creation of the unit of manufacture” as FIG. 4A is a flowchart depicting a process that can be used to create a shelf configuration, according to a preferred embodiment of the present invention. Specifically, this process is performed by the rackface tool 122, according to a preferred embodiment of the present invention. The process begins with step 404. In step 404, the user specifies a unique name for the new shelf configuration. Typically, this name must be unique in the database 108. In addition, values are specified for required fields. For example, in a preferred embodiment, required fields include a manufacture, an equipment class and an equipment subclass. Note that in a preferred embodiment, a value for manufacturer or `generic` is used for generic racks as previously described. Next, in step 406, a pick list is displayed to the user comprising a list of pre-defined components from the product catalog 126. Thus, components that have been created according to the process depicted in FIG. 6 are listed in step 406. Specifically, in this example, a list of shelf components are presented to the user. In a preferred embodiment, sort, find and filter options are provided to assist the user in finding a particular component listed in the product catalog 126. In any case, the user is prompted to select a particular shelf from the pick list presented in step 406 (col. 12, lines 23-46);

Identifying information includes a manufacture's name, model, and description.

Preferably, such information is taken directly from the manufacture's data sheet or the

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like. In addition, identifying information can include a unique part number provided by the service provider, and classifications and/or subclassifications for each component.

Physical attributes include for example, quantities for height, weight and depth.

Electrical data includes the type of voltage, such as direct current (DC), single phase alternating current (AC1), and three phase alternating current (AC3). In addition, electrical data includes a quantity of amps, watts and voltages typically drawn by the module. For shelves, connection attributes can include information such as the number of wire, fiber optic, and/or coaxial connections. Status information preferably includes for example a flag to indicate whether or not the component specification is complete, incomplete or waiting for approval from a component approval group or the like (col. 3, lines 5-35).

Fisher teaches "wherein the configuration management memo table stores configuration comments" as a table stores Entity Names such as configuration part and configuration code and entity definitions such as part numbers of Compaq added software and hardware, contains family configuration codes for each base model part numbers (col. 13). The table, which stores entities definitions, is represented as the configuration management memo table. The entity definitions such as part numbers of Compaq added software and hardware, contains family configuration codes for each base model part numbers are represented as configuration comments.

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Knoblock's teaching of location definition, identifying unit of manufacture and Fish's teaching of storing configuration definitions in a table to

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Rivette's system in order to allow a user to identify location of a part of a particular equipment in large database easily and further searching parts of items in a relational database quickly and further provide users with a means for placing configured racks from the configuration library in particular locations within remote sites.

8. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knoblock et al (USP 6023699) in view of Rivette et al (or hereinafter "Rivette") (US 6339767) and Fisher et al (or hereinafter "Fisher") (US 6247128) and further in view of Chang et al (or hereinafter "Chang") (US 6061515).

As to claim 46, Knoblock does not explicitly teach the claimed limitation "testing the assembled unit of manufacture in accordance with the configuration information in the relational database".

Chang teaches testing mapping objects into a relational database (col. 6, lines 25-40; col. 9, lines 45-55).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Chang's teaching of testing mapping objects into a relational database to Knoblock's system in order to reduce risk when storing data into a relational database.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cam Y T. Truong whose telephone number is (571) 272-4042. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tony Mahmoudi can be reached on (571) 272-4078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cam Y Truong/
Primary Examiner, Art Unit 2169

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